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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,715	03/30/2001	Jerome L. Elkind	TI-29069	7467
7590	08/09/2004		EXAMINER VANORE, DAVID A	
Mark Courtney of Texas Instruments Incorporated P.O. Box 655474 MS 3999 Dallas, TX 75265			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/823,715

Applicant(s)

ELKIND ET AL.

A

Examiner

David A Vanore

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-16 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### ***Response to Arguments***

Applicant's arguments filed July 12, 2004 have been fully considered but they are not persuasive.

Applicant has argued that the electrodes of Nelson et al. cannot create an interaction bias across the chamber. The examiner disagrees. The electrodes of Nelson et al. have a potential applied thereto and therefore propagate an electric field across the chamber, thus generating a interaction bias across the chamber.

### ***Allowable Subject Matter***

Claims 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 22-23 are objected to for the reasons set forth in the previous Office action.

The indicated allowability of claims 10, 13-16, and 19-20 is withdrawn in view of the newly discovered reference(s) to Leland et al. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2881

Claims 9, 11-12, and 21 stand rejected and claims 14-15 and 19-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nelson et al.

Nelson et al. teaches a surface plasmon analysis system comprising

An integrally formed surface plasmon resonance sensor (100) having a transparent housing (112), a source of electromagnetic radiation (130), a photodetector array (170), a thin surface plasmon resonance layer (114), and a fluid path (122) in communication with the resonance layer, the device further having a means comprising plural electrodes (544, 580, 582, 584, and 586) to cause an electrical interaction bias across the chamber (Col. 11 Lines 27-38).

Regarding claims 14-15 and 19-20, Nelson et al. teaches the provision of a PSR sensor (100) in optical communication with an SPR layer (114), a derivatized SPR layer (Col. 10 Lines 23-35), a fluid path having an analyte detection chamber (Fig. 1A and 5A) a means for generating an electrical interaction bias (544, 580, 582, and 586) a conjugate between an analyte and a bias responsive moiety where the analyte is reactive with the derivatized SPR layer and the moiety changes the response of the analyte (Col. 7 Lines 45-61), where the conjugated analyte is for the measurement of molecular interactions in anti-body/antigen binding (Col. 13 Note Example 1) which is a competitive binding assay.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2881

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 10, 13, and 16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Leland et al.

Leland et al. teaches a flow cell, and method for directed molecular interaction analysis specifically for the measurement of competitive binding assays comprising an analyte and bias responsive moiety such as a conjugated antibody/antigen reaction (Col. 9 Line 55 – Col. 10 Line 53), comprising fluid path such that an analyte to be analyzed by surface plasmon resonance are directed across a directed molecular interaction bias generator comprising working electrodes (56/58) directly opposite a window and above electromagnet (27/37) such that a desire analyte may be subjected to a magnetic or electrical interaction bias across the chamber for selectively manipulating the analyte for analysis (Col. 21 Line 46-Col. 22 Line 8, and Col. 6 line 49-Col. 7 Line 26). Leland further teaches that the surface of the electrodes 56/58 are used as detection means (Col. 15 Lines 36-43) and that a photomultiplier tube may be used to detect light excited during surface plasmon resonance (Col. 22 Lines 1-9).

Art Unit: 2881

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Vanore whose telephone number is (571) 272-2483. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dav



NIKITA WELLS  
PRIMARY EXAMINER

08/06/04